Eagle Rock Reforestation Project

Proposed Action

Williams Ranger District
Kaibab National Forest
August, 2012

Background

The "Eagle Rock" fire was started by lightning on Friday, June 11, 2010, 11 miles NE of Williams and burned a total of 3374 acres. Approximately 1382 burned under high severity (Severity map, Appendix B). Immediately following the fire, measures were taken to mitigate the effects of fire on natural resources. Aerial seeding of grasses took place on 600 acres of severely burned areas (Aerial Seeding map, Appendix C). The establishment of grasses improved the retention of upper level soil layers. The establishment of ponderosa pine would increase long term stabilization. Natural regeneration of ponderosa pine is not likely due to the distance from a seed source.

Project Area Location and Description

The area proposed for treatment under the Eagle Rock Reforestation Project lies in Township 23 North, Range 4 East (T23N, R4E) Sections 15,16, 20, 21 and 22 (Gila and Salt River Baseline Meridian) (Vicinity Map, Appendix A).

Geographic Area 2: Williams Forestland, as described in the Kaibab National Forest Land Management Plan.

Purpose and Need for Action

The purpose of the proposed action is to meet the desired conditions and objectives of the Kaibab Forest Plan by planting ponderosa pine seedlings in areas severely burned from the Eagle Rock Fire. The action is needed to:

- Reforest severely burned areas and habitats
- Establish a future ponderosa pine seed source in severely burned areas
- Stabilize soils where an existing lack of ground cover presents a risk of erosion, particularly on steep, north facing slopes.

Existing Condition

Regeneration of ponderosa pine in the high severity burn areas is non-existent. There is also evidence of erosion on steep slopes. Common mullein (*Verbasum thapsus*) has dominated the understory in great abundance. Also, a small number of dead trees have fallen, but the majority of trees in the area are still standing. (Photos, Appendix E)

Desired Condition

The moderate to high severity burn areas would have patches of trees that may provide a seed source in the future for further regeneration. The trees would be protected from browse by animals therefore being allowed to grow more vigorously and reach cone bearing maturity at the faster rate.

Kaibab Forest Plan Direction
The Kaibab Forest Plan, as amended, contains the following direction relating to the proposed project:

- Formulate and implement control measures where and when the following damage occurs: soil compaction, loss of vegetative cover, tree damage and mortality (pg.41)
- Favor native species in all re-vegetation activities (pg. 41)
- Rehabilitate areas impacted by wildfire (pg. 42)

Proposed Action
To meet the Purpose and Need for Action, the Williams Ranger district proposes to plant ponderosa pine seedlings on approximately 300 acres within the perimeter of the Eagle Rock Wildfire. All plantations will provide protection from wildlife predation of planted seedlings. (Plantation Location Map, Appendix D)

Three plantations areas, approximately 190 acres, have been identified as inaccessible for fence construction, due to steep slopes, and will require the use of protection cones or vexar tubes to adequately shield seedlings from predation.

Two plantation areas, approximately 98 acres, are accessible for fence construction. Work in these plantation areas consist of constructing enclosures using fence materials. Approximately 8 acres in this area will be designated for progeny testing and study. Fence design will keep large animals from browsing pine seedlings. Fence construction consists of a wire fence, approximately eight-foot in height. All dead trees which pose a hazard to the fences will be felled. All outside surrounding trees leaning away from fences will be retained as well as any standing dead tree with nest cavities (regardless of DBH). This is being done to provide long term protection to the fences and to reduce maintenance costs.

Site preparation in fence exposure areas will consist of hand felling, by chainsaws, dead trees less than 18” DBH. Any dead standing tree with nest cavities, regardless of size, will be retained. Felled trees will be limbed and piled by machine for burning. Due to the lack of fine material on dead trees, live trees may be felled and piled to aid combustion. Piles will be burned when conditions are such that desired consumption will be achieved and smoke impacts in surrounding towns are minimized. Off road vehicles will be utilized for material transportation and safety mitigations. Slash and small tree boles will be retained to protect soil resources in appropriate places.

The remaining 12 acres will be used to plant seedlings along the Cross Country Ski Trail.

There are no extraordinary circumstances associated with this proposed action, and is pursuant to 36CFR 220.6 (e)(5)

Project Design Criteria
Invasive Plant Species/ Sensitive Plant Species

- Pre-treatment inventory for bullthistle, cheatgrass and Dalmation toadflax accompanied by herbicide applications, manual removal, and/or avoidance (as needed). There will be post-treatment monitoring of these species
- Less ground disturbing methods of mechanical piling (e.g., excavator, grapple) may occur. Minimize dozer piling when possible to minimize ground disturbances that promote noxious weeds establishment.
- There are no known sensitive plant species populations in the vicinity of the project area.

Cultural Resources:
The project area has been surveyed for cultural resources and there are sites within the project area. Planting locations are outside of known sites. Protection measures include:

- Prior to various project implementation phases, project managers must consult with archaeologists who will then flag site boundaries for avoidance, as necessary.
- If additional ground disturbing activities are proposed, project managers must first contact the Forest Archaeologist so an amendment to the heritage clearance can be drafted and submitted for review.

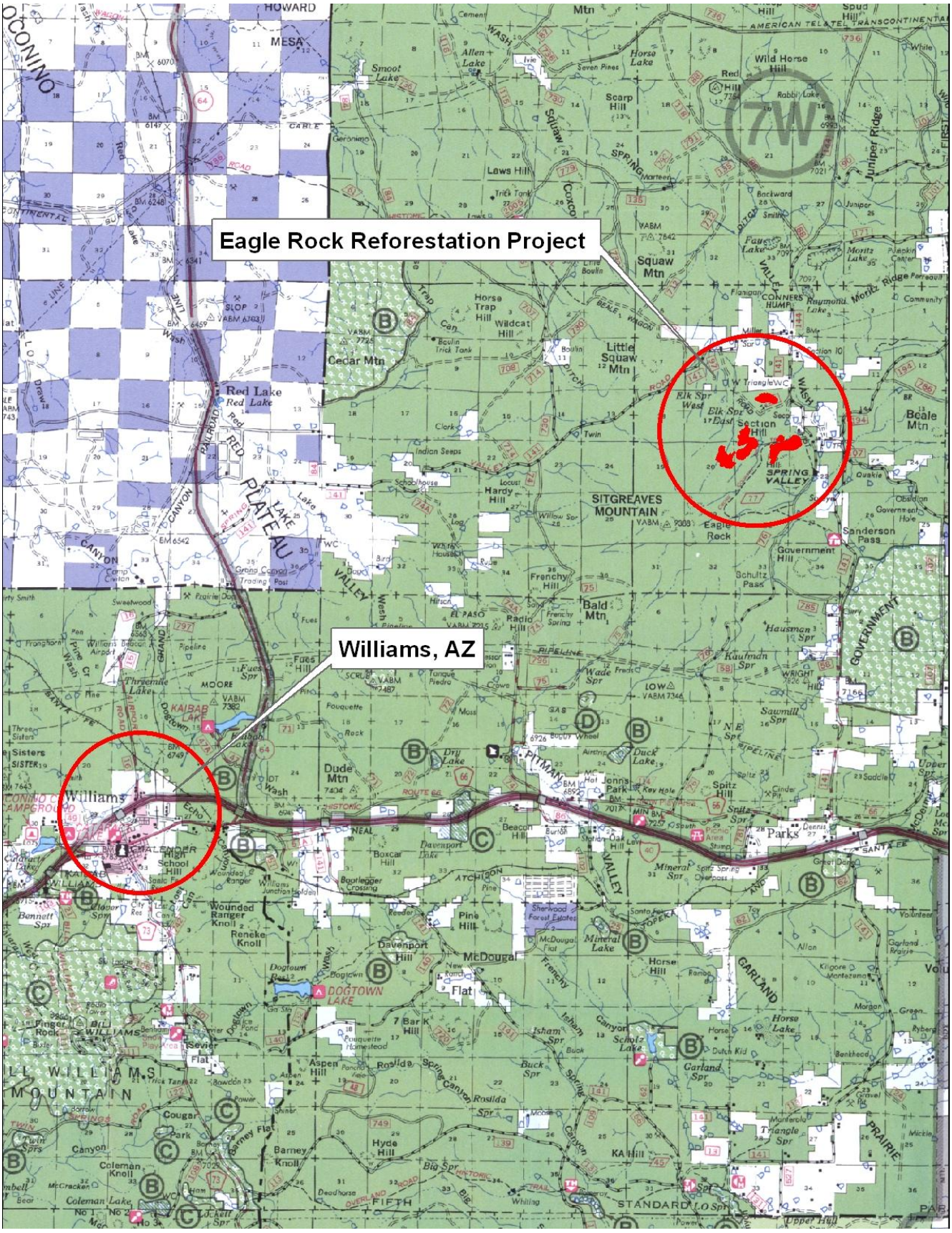
Smoke Management:

- Follow Best Management Practices and Standard Management Practices for optimal smoke dispersal including coordination with Arizona Department of Environmental Quality and notifications to the public.

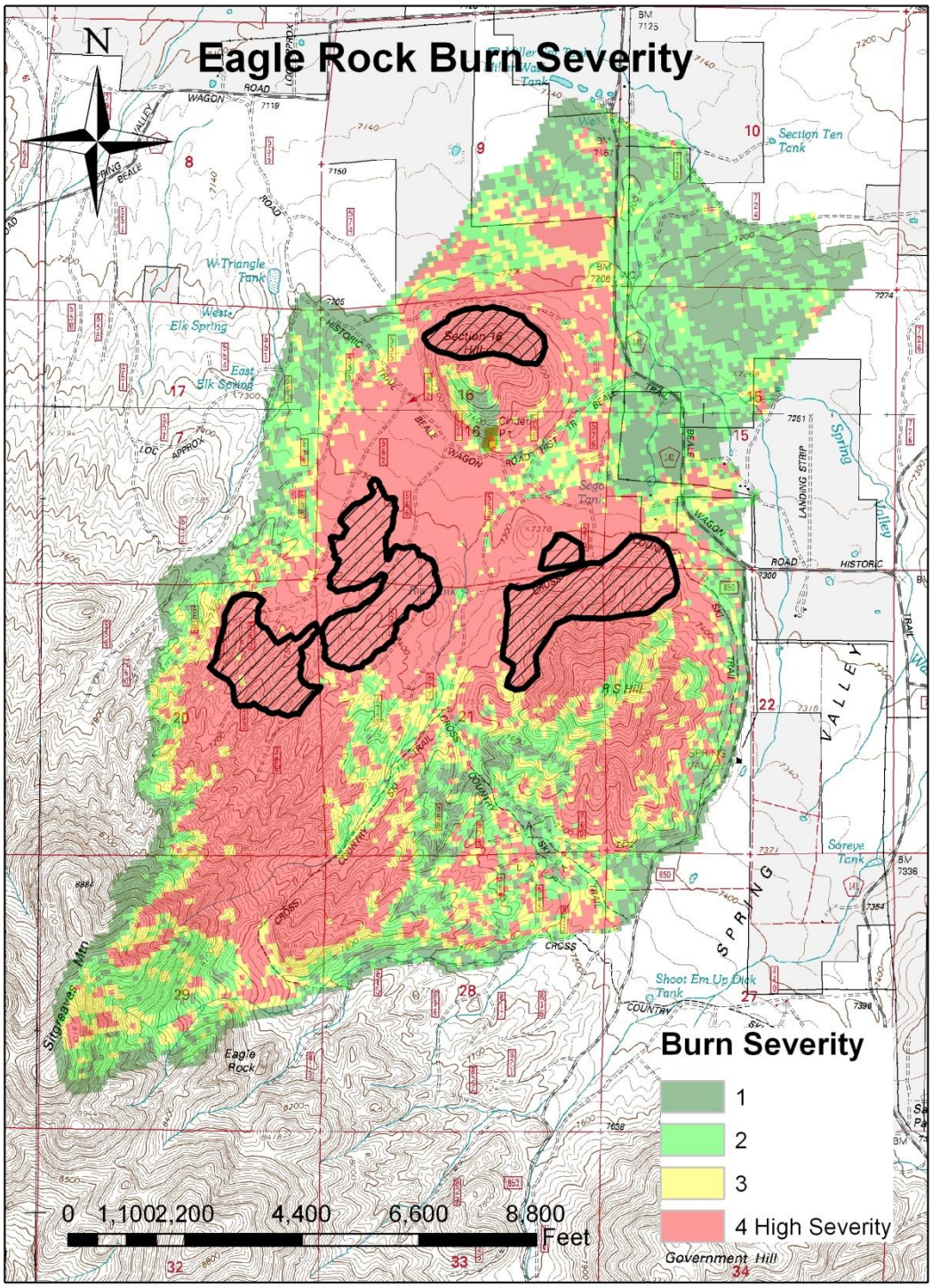
Implementation Date
Project implementation is anticipated to begin spring of 2013 with the planting of trees on steep slopes. The felling of trees and construction of the fences would likely start 2013. The completion of fences and planting would be completed in the next five years.

Appendix:

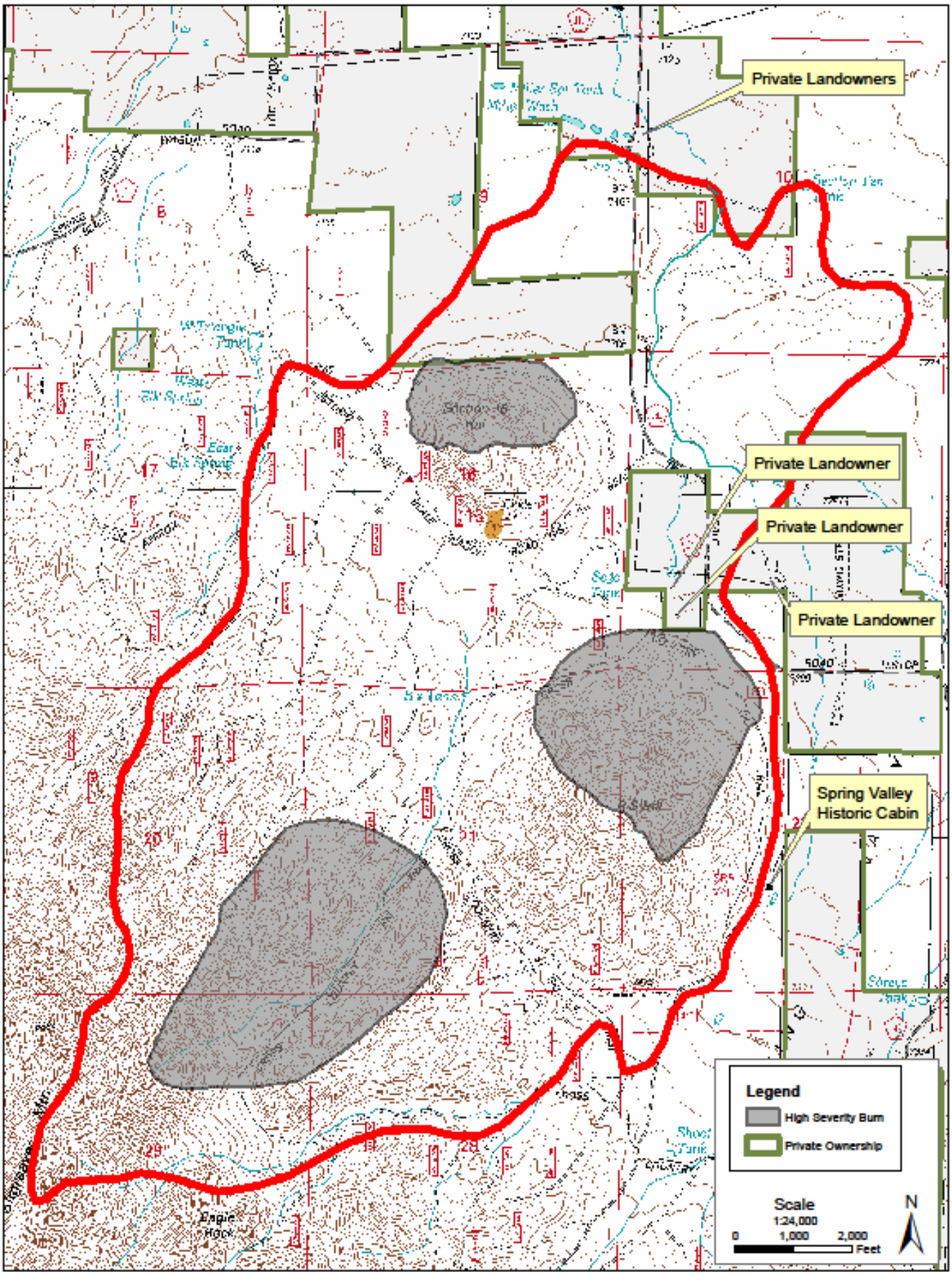
Appendix A: Eagle Rock Vicinity Map



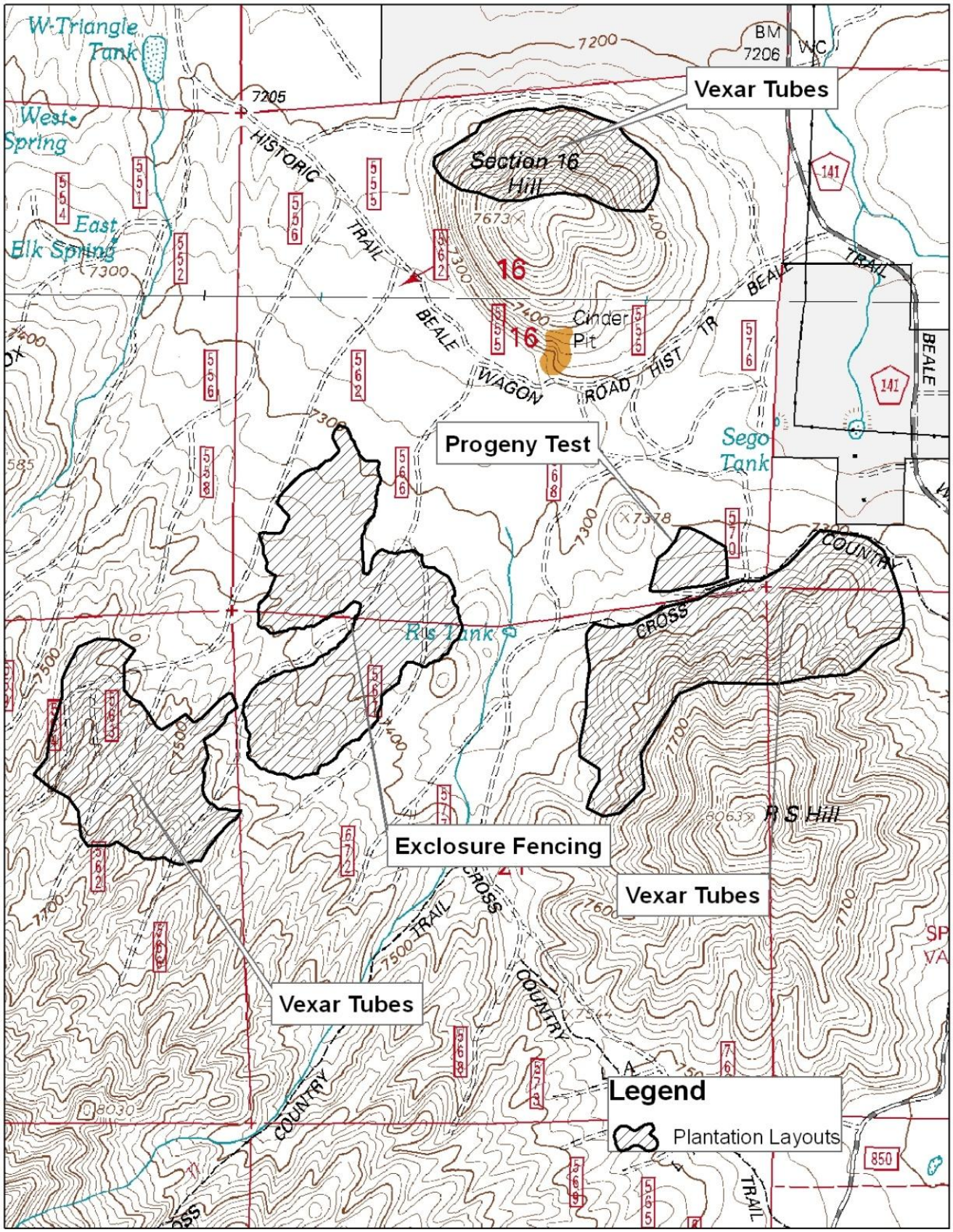
Appendix B: Eagle Rock Fire Burn Severity Map



Appendix C: Eagle Rock Fire Grass Seeding Location Map



Appendix D: Eagle Rock Plantation Location Map



Appendix E: Photos

Photo 1: Section 16; comprised of common mullein and small diameter mortality, representative of all plantations.

Photo 2: Section 16; shows steep slopes representative of all plantations requiring vexar tubes due to inaccessibility.